ABSTRACT

A programmable multiple current source includes a plurality of current source circuits each having current level data storage circuitry. A current level data input terminal and a control input terminal are connected to each current source circuit to supply current level data to the storage circuitry. Peak detector and storage circuitry is coupled to each of the output terminals of the current source circuits. Each associated current source circuit includes a master digital-to-analog converter coupled to the current level data storage circuitry, a driver circuit coupled to the digital-to-analog converter and to the associated current source circuit, comparator and storage circuitry having a first input coupled to the peak detector and storage circuitry and a second input coupled to the driver circuit, and current level adjustment circuitry coupled to the comparator and storage circuitry and the driver circuit.